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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,455	01/15/2004	Charles O. Townley	THUMB-604DIV	5634
7590 Christopher John Rudy 209 Huron Ave., Ste. 8 Port Huron, MI 48060			EXAMINER PELLEGRINO, BRIAN E	
			ART UNIT	PAPER NUMBER
			3738	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/17/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/758,455

Applicant(s)

TOWNLEY, CHARLES O.

Examiner

Brian E. Pellegrino

Art Unit

3738

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 1/15/04, 3/7/05.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Species B in the reply filed on 11/6/06 is acknowledged. The traversal is on the ground(s) that Species B can include features presented in Species C and D. This is found persuasive because it is noted that page 12 of Applicant's specification states that various features can be incorporated with the embodiments. However, it is clear there are two distinct inventions between Species A & B and thus the election of Species B (a modular thumb implant) is noted.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 21-24,26,40,41 are rejected under 35 U.S.C. 102(b) as being anticipated by Townley (2934065). Please note that the intended use, as set forth in the claims, carries no weight in the absence of any distinguishing structure. Fig. 4 shows a generally hemispherical head **42** having a medio-proximally directed, articulating surface and an abrupt planar end to the head to form a truncated ball. Fig. 1 shows a stem **14** attachable to the head having an inward curved profile and a general angle of projection from the head that is acute. Fig. 3 shows the stem can also have a tri-flange cross-section.

Claims 21,22,24,28,29,40,41 are rejected under 35 U.S.C. 102(b) as being anticipated by McLaughlin (5507818). Please note that the intended use, as set forth in the claims, carries no weight in the absence of any distinguishing structure. McLaughlin does disclose the prosthesis can be used for any joint, col. 1, lines 26-28. Fig. 1 shows a modular joint prosthesis having a stem **13** and a head **12** attached to the stem. As seen in the drawing the angle of projection of the stem from the head is acute. Fig. 3 illustrates the means of attachment of the head to the stem. The examiner is interpreting the claimed feature "eccentric attachment" in this way: pertaining to an object or activity that departs from the usual. Claims in a pending application should be given their broadest reasonable interpretation. *In re Pearson*, 181 USPQ 641 (CCPA 1974). See also *In re Morris*, Fed. Cir. 1997 127 F3d 1048, 1054,1055. Thus, the Examiner interprets McLaughlin's eccentric head site that includes the wedge shaped connector **11** having an angled receptacle **22** for a trunion as being "eccentric". Fig. 3 also illustrates the head **12** having a generally hemispherical articulating surface and an abrupt planar end with a trunion receiving cup **22**. It can also be seen that the stem **13** has a trunion **21**.

Claims 21,22,24,28,29,31,32,34-36,40-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Townley (6096084).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. Please note that the intended use, as set forth in the claims, carries no weight in the absence of any distinguishing structure. Fig. 8 shows a modular joint prosthesis with a trunion receiving head **100** and an inwardly curved stem **200**. Townley discloses the prosthesis is made with a ceramic head and a metal stem, col. 4, lines 24-30. Fig. 4 shows the cup has tapered walls to match the contour of the trunion of the stem.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Townley '065 in view of (ASTM, 1998). Townley is explained supra. However, Townley fails to disclose a porous coating on the prosthesis. The ASTM teaches that porous coatings can be applied on prostheses to improve tissue attachment and also bonding of cements to the prostheses, p. 700. It would have been obvious to one of ordinary skill in the art to incorporate a porous coating on the prosthesis of Townley such that it enhances the securement of the prosthesis in the implanted site as taught by the ASTM.

Claims 21-27,37-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over in view of Wright Medical Technology in view of Townley '065. Wright Medical

Technology shows (front page) a thumb implant with an eccentric head formed thereon which is spherical and uninterrupted. The Swanson thumb implant can have a smooth head with a diameter greater than 13mm, page 2. The Swanson implant is made of a metal, page 2. Regarding claim 21, Wright Medical Technology failed to disclose the implant can be made in modular form. Modular thumb implants are known in the art. Townley teaches that a modular joint prosthesis is made with a triflanged, curved stem to better match the contour of the bone structure and anchor better in the bone, col. 3, lines 31-36,53-55. Townley also teaches the use of two components or forming the prosthesis as a modular implant is designed to reduce the stresses on the distribution of forces on the implant, col. 1, lines 54-56. It is known in the art or common knowledge that forming multiple parts reduces the size of an entire implant by enabling the prosthesis to be inserted in separate parts and enabling smaller incisions to be used for insertion. Regarding claims 26,27,38, Townley shows a triflange cross-section for a stem, Fig. 3. Townley also shows an acute angle (or about 65-75°) curve profile for the stem with respect to the head, Figs. 1,5. It would have been obvious to one of ordinary skill in the art to form the implant as a modular prosthesis as taught by Townley for the thumb implant of Wright Technology such that it reduces the size of components inserted and distributes the stresses from one to two components. Additionally, it would have been obvious to modify the stem profile to be curved and triflanged as taught by Townley with the Swanson implant such that is better anchored in the thumb bones.

Claims 21,22,24,25,26,28,,29,31,32,34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright Medical Technology in view of Abouaf et al.

(5871547). Wright Technology is explained supra. However, Wright Technology fails to disclose a modular prosthesis such that the head is ceramic or to utilize a Morse taper to couple the head and stem that is modular. Abouaf et al. teach (Fig. 1) a modular prosthesis having a curved stem with a trunion that is tapered and a head with a receptacle that is tapered to match the trunion. Abouaf also teaches to utilize different materials, such as ceramic for articulating heads of joints because of its toughness, col. 4, lines 7,29-31,38-42. Abouaf additionally discloses the implant can have a metal stem and ceramic head (col. 6, lines 44-51) that are assembled via the Morse taper. It would have been obvious to one of ordinary skill in the art to utilize a ceramic head and a curved metal stem thus forming a modular prosthesis as taught (col. 3, lines 61, 63, 65) by Abouaf et al. with the thumb implant of Wright Technology such that the prosthesis has reduced wear at the joint or articulating area and a curved stem matches the contour of the bone.

Claims 27,30,33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright Medical Technology in view of Abouaf et al. '547 as applied to claim 22 above, and further in view of Townley '065. Wright Technology as modified by Abouaf et al. is explained as before. However, the Swanson implant as modified by Abouaf failed to disclose a triflanged stem. Townley is explained supra. It would have been obvious to one of ordinary skill in the art to incorporate a triflanged stem as taught by Townley with the Swanson implant as modified by Abouaf such that it is more firmly anchored into bone.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Caffiniere (FR 2670109) teaches a modular thumb prosthesis.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Pellegrino whose telephone number is 571-272-4756. The examiner can normally be reached on M-Th (7:30am-5pm) and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on 571-272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TC 3700, AU 3738

BRIAN E. PELLEGRINO
PRIMARY EXAMINER

